

IN THE SPECIFICATION

Please replace the "Summary of the Invention" section with the following marked-up replacement section:

SUMMARY OF THE INVENTION

The present invention provides a utility knife having a transverse angulation feature that enables glazing and sheet rock operations to proceed in a safe, efficient and reliable manner. Generally stated, the utility knife has a two-piece handle comprising a left-first section and a right-second section. A reversible detachable blade with anchoring holes is mounted on a locating pin, and attached firmly to the left-first section or right-second section. The locating pin locates the blade from forward or reverse motion. The blade is held firmly between the left-first and right-second sections, within a channel by clamping the sections together and fixing them in the clamped condition using a fastening means such as a pair of screws, a countersink and threaded tap-hole, which locate the blade firmly in the horizontal plane. A channel in the right-second side-member firmly captures the top and bottom edge of the knife blade against the top and bottom edges of the milled channel and locates the blade in the vertical plane. This rigid attachment means grips the blade firmly by the blots within the channel located by the locating pin and allows longer protrusion of the blade, ~~more than 50% of the length of the blade~~, without excessive blade bending meeting the needs of glaziers and sheet rock workers.

The right-second section has a hollow portion providing a milled compartment in the right side member for holding one or more blades. Each of the blades is reversible end to end to provide a fresh cutting edge and has two holes, which match with the locating pin.

The blades can also be turned over to permit reversal of the utility knife for left and right handed cutting.

As a consequence of the transverse angulation of its handle, the utility knife is especially convenient for use in window glazing applications, since the hand is not located in-line with the blade. The transverse angulation may be in the range of 10 degrees to 80 degrees and more preferably between 30 to 45 degrees. The knife no longer needs to be angled in making cuts in tight corners and cuts, which is essentially perpendicular to the surface can be easily made since the size of the hand is accommodated by the transverse angulation of the handle. The utility knife can be used in right angle applications such as scoring of linoleum or sheet rock in tight places, such as corners and the like. Previous utility knives have been stubby and straight. These prior art configurations prevented facile operation of the knife, owing, in part, to interference from the operator's hands.

One very common system for window glazing comprises use of a frame having a right-angled open channel to accommodate a glass pane. The glazing is accomplished by placing a bed of putty or similar glazing compound along the inside vertex of the channel and then inserting a pane of glass into the bedding compound. The pane is pressed to extrude any excess putty and assure complete coverage of the edge and a fully hermetic seal. The pane may then be secured with glazing points or similar fasteners.

This system is intended to allow replacement of broken glass in a simple manner. However, extraction of the old pane frequently requires use of a sharp knife or similar flat cutting instrument to break the putty seal between the flat surface of the glass near its

edges and the sides of the right-angled frame generally parallel thereto, requiring a perpendicular cut. Conventional straight utility knives, putty knives, or razor blades are often used for this task but have proven to be poorly suited and, in some cases, even hazardous to the artisan. With each of these tools, the user's hand gripping the handle prevents the blade from being aligned with the perpendicular plane of the gap between the window and the frame. The user may attempt by downward pressure against the glass to bend the blade to align and insert it in the gap for cutting. However, the bending and pressure entail significant risk of injury, as the generally brittle blade may snap and project sharp fragments or the glass may fracture and expose the user's hand to laceration. In marked contrast, the transverse angulation of the present knife and stable knife support system obviates these difficulties. Inadvertent breakage of blades is reduced or eliminated. The present utility knife allows making cuts, which are essentially perpendicular to the surface easily, a feature unavailable in knives where the handle is in-line with the knife blade. The force applied by the user against the glass is significantly lower than that heretofore required to bend the blade of prior art glazing knives. This, in turn, greatly reduces the risk of injury to the artisan from broken glass or blades. The present knife is also far less likely to nick or otherwise damage the window frame.

Please replace the "Description of the Preferred Embodiments" section with the following marked-up replacement section:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

As used herein, the term "utility knife for ~~glaziers' means glaziers~~" means that the utility knife is capable of making perpendicular cuts to surfaces which are in close proximity preventing conventional in-line knives to be used due to their stubby construction as well as inability of hand which grips the handle to approach the region to be cut with the blade in a vertical position. The utility knife for glaziers also has the ability to expose a fresh unused edge by reversing the blade, use a new knife blade from the holding compartment or rotate the blade by 180 degrees to convert a right handed utility knife to a left handed utility knife. The utility knife for glaziers has a ~~left first~~ and a ~~right side second~~ member which holds the knife using a locating pin attached to the ~~left side first~~ member and the two sides are securely held together using two set of bolts. The knife blade sits in a channel milled in the ~~right side second~~ member so that it does not move. The knife is entirely locked in position within the handle and its position is not maintained by friction. The term 'transversely angulated' means that the knife blade is nominally perpendicular to the plane defined by the blade and the handle and the transversely angulated angle is the angle between the long direction of the handle and the long direction of the blade.

Key features of the design and application of the utility knife for glaziers include 1) means for providing support for the knife in all three directions and providing a stable knife blade capable of cutting in the transverse angulated location which applies

momentum to the blade, 2) means of clamping the blade in the transverse angulated position using a ~~left side~~first member, ~~right side~~second member, locating pin and clamping screws, 3) means of reversing the blade to expose fresh cutting edge, and 4) means of reversing a blade to convert a right handed utility knife for glaziers to a left handed utility knife for glaziers.

Referring to FIG. 1 there is shown the front view and directly below it a top view of a right-handed utility knife for glaziers in 10. It shows an extended knife blade element at 16, where it protrudes more less than 50% of its length and is held by the ~~left side~~first member 12 ~~and~~and the ~~right side~~second member 14. The knife blade element 16 is held tightly between the ~~left~~first and ~~right side~~second member by the clamping means of a bolt 20 that passes through ~~left side~~first member and is threaded into a hole at 27 in the ~~right side~~second member 14. The clamping method may be other than use of a bolt as indicated in the drawing. The holes in the knife blade element 16 mate with a pin or ball protrusion 18 in the ~~right side~~second member 14, and the knife blade element rests in a milled channel 17 in the ~~right side~~second member 14. Alternatively, the pin may be attached to the ~~right side~~second member or may be located in holes drilled in the ~~left~~first and ~~right side~~second members. The tip 24 of ~~left side~~first member 12 slides inside a shoe like protrusion in the ~~right side~~second member at 23. The knife blade is easily removed by loosening the bolts 20, and separating the ~~left side~~first member and the ~~right side~~second member. The ~~right side~~second member 14 has a milled cavity at 19 to hold extra knife blade elements 22.

Referring to FIG. 2 there is shown the view of a left-handed utility knife for glaziers. The knife blade element 16 is inverted to function as a left-handed utility knife for glaziers. All other elements are identical to figure 1.

The details of the utility knife for glaziers is shown in FIGS 3, 4 and 5. The ~~right side~~second member 14 is first shown in detail in FIG. 3 as front view and directly below it its top view. It has a channel 17 milled in the inclined portion to accept the knife blade and the width of the milled channel is exactly same as the width of the knife blade ~~and is~~ ~~designed to fit as a loose fit~~. The depth of the milled channel is ~~slightly less~~greater than that of the knife blade thickness so that when the ~~left~~first and ~~right~~sidesecond members are clamped, the knife blade is firmly held. It also shows the milled opening which houses three spare knife blades at 19. The ~~right~~sidesecond member carries the locating pin or ball protrusion 18 within the milled channel 17, as shown to receive the hole in a knife blade element. It has a threaded hole at 27 to accept the bolt 20, which accomplishes the clamping action of the ~~left~~first and ~~right~~sidesecond members. It has a shoe like protrusion at 23 to accept the tip 24 of the ~~left~~sidefirst member. Thus, the shoe firmly holds the knife blade element in between the ~~left~~first and ~~right~~sidesecond member even when force is applied to the knife blade.

Referring to FIG. 4 the details of the ~~left~~sidefirst member, 12. The tip 24 of ~~left~~sidefirst member 12 is designed to slide into shoe 23 of the ~~right~~sidesecond member slides and capture the knife blade element 16. The hole at 28 is a clearance hole for the bolt 20.

Referring to FIG 5, the detail of the knife blade element 16 is shown. The blade has a sharp edge at 29 and several locating holes at 30. The blade has several locations at 25 shown as dotted lines along which the blade may be fractured to expose a fresh knife blade edge.

The threaded portion of the bolt is only as deep as that of the ~~right side~~second member and the bolt fits as a sliding fit into the ~~left side~~first member.

Having thus described the invention in rather full detail, it will be understood that such detail need not be strictly adhered to, but that additional changes and modifications may suggest themselves to one skilled in the art, all falling within the scope of the invention as defined by the subjoined claims. For example different locating member mechanism and blade clamping means may be used to retain the utility knife blade in the device.